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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,936	11/13/2001	Petri Koskelainen	59864.00635	6285
32294	7590	07/20/2006	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P.			PRIETO, BEATRIZ	
14TH FLOOR			ART UNIT	
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TYSONS CORNER, VA 22182			2142	

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/986,936

Applicant(s)

KOSKELAINEN ET AL.

Examiner

Prieto Beatriz

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 24-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 24-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jan 13 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



### ***DETAILED ACTION***

1. This communication is in response to Amendment filed April 24, 2006, claims 1-19 and 24-43 remain pending.

2. Regarding claims 1, 24 and 34, the term "more efficiently" being a relative term, which may render the claim indefinite, has been interpreted in light of the specification. In the context of load balancing and what one of ordinary skill in the would reasonable apprise regarding this term. To provide a service "more efficiently" will be interpreted as any method, structure, code or system that would reduce or decrease processing execution time, cost utilization or load of computers, processors and other system resources by distributing workload, task or operations amongst operational computers, processors and other system resources.

3. Regarding claims as amended, there is a strong presumption that an adequate written description of the claimed invention is present in the specification as filed, Wertheim, 541 F.2d at 262, 191 USPQ at 96; however, with respect to newly added or amended claims, applicant should show support in the original disclosure for the new or amended claims. See MPEP § 714.02, and 2163.06. ("Applicant should specifically point out the support for any amendments made to the disclosure.") (see MPEP § 2163 B (II)).

Specifically, regarding claims 1, 24 and 34 reciting the following clause: "wherein the first server provides the service in a single service stream to each second server to be then provided from the plurality of client devices redirected to the at least one second server", the claimed term "single service stream" and/or "stream" has not been found in applicant's detail description of invention. Thus is not clear how what is the scope or breadth of the term.

According the closest written description to this subject matter, [see par 0041] FIG. 6 shows a diagram of event/notification DST signaling according to an example embodiment of the present invention. A client, 45A, subscribes to a notification service or event with main server 40. Main server 40 decides to redirect this client and finds an additional server 44. Main server 40 creates a URL at additional server 44 if one does not already exist. Main server 40

then sends a SIP 302 Moved message to client 45A. This instructs client 45A to contact additional server 44 for the event subscribed to. Client 45A then sends a SUBSCRIBE message to additional server 44. Additional server 44 responds with an SIP 200 okay message. When new information becomes available related to the event that client 45A has subscribed to, main server 40 sends a NOTIFY message containing the updated information to additional server 44 who may then forward it on to client 45A. Furthermore, [see par 0032] The additional servers may be identified and manually configured in the main server, or found dynamically using known Domain Naming System (DNS) and/or Service Location Protocol (SLP) mechanisms.

Thus, regarding amended claim limitation, “wherein the first server provides the service in a single service stream to each second server to be then provided from the plurality of client devices redirected to the at least one second server”; claim will be interpreted [AS BEST UNDERSTOOD] as wherein the first server provides a communication related to the request to the second server to be then provided to the plurality of client devices redirected to the second server.

### ***Claim Rejections - 35 USC § 103***

4. Quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

5. Claims 1-2, 4-15, 19, 24, 26-34, 36-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et. al. (US 6,167,449) in view of Cardellini, et. al. “Dynamic Load Balancing on Web-Server systems”, IEEE (Cardellini hereafter) in further view of Shim, H.S., et. al. An Example of Using Presence and Availability in an Enterprise for Spontaneous, Multiparty, Multimedia Communications, 2001, p. 1-11.

6. Regarding to claimed invention, Arnold teaches, the invention that gives an application an ability to search or browse for network services based on the type of service, rather than having to know the name or location of the service of underlying network communication protocol used by the service. The system includes a network look-up procedure that allows

client applications to access SIP servers; including Domain Name Service (DNS) and Lightweight Directory Access Protocol (LDAP), as well as Service Location Protocol (SLP), running on top of the Transport Control Protocol/Internet Protocol (TCP/IP). The system includes interface for receiving request for type of service and queries on of the SIP server, the service type includes DNS, FTP, AFP, Mail and etc. The system includes an interface, which is configured to enable client devices to select and request several types of application form SIP servers, from-any receiving request, identifying type of request redirecting request from appropriate type of application from SIP servers, form any domain (DNS) or location of the servers (SLP) including identifying type of request redirecting request from appropriate type of service in accordance with the request are implicitly disclose by Arnold, see abstract, and col. 3, lines 23-col. 4, lines 1-25. Although Arnold redirects the request to an appropriated service, he does not explicitly teach where this selection is based on the client device location.

Cardellini discloses determining to identify a server to provide the services to be provided to a plurality of client devices on the basis of the determined location of each of the plurality of client devices, thus determining to identify at least one other server to provide to at least some of the plurality of client devices based on the location thereof. Specifically, redirecting clients from a service server (e.g. DNS server) to a second server of a plurality of servers (Server<sub>1</sub> ...Server<sub>N</sub>) based on client location and each of the plurality of server loads (p. 30), where the first server selects on the basis of state information including client location, server load or a combination (p. 30), wherein client state information includes client's geographical location including identifying the requesting domain (p. 31), the first server (i.e. DistributedDirector) acting as a primary server determines the most suitable server on the basis of relative client-to-server topological proximity (p. 30), using server availability/load along with client proximity (p. 30).

It would have been obvious to one of the ordinary skill in the art at the time of invention given the teachings of Rosenberg for generating services list that may be a hierarchy of types of network services or geographic locations of providers of the type of service requested on the network to which the computer system is connected, one would be motivated to considered the location of the client devices with respect to the locations of the server as well as the load thereon because in doing response time and server load congestion is reduced, as suggested by

Cardellini. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Cardellini because in using state information, the system can exclude servers that are currently unreachable because of fault or congestion conditions, combined with state collection information in the form of feedback effectively avoids system overload, as suggested by the reference. The adaptive scheme further adequately addresses client request skew and probable heterogeneity of server capabilities, a further indicated by the reference

However the above-mentioned prior art do not explicitly teach where the first server provides information related to the service to a second server from which some of the plurality of client devices get the service from.

Shim et. al. teaches a method for setting up and managing services (e.g. spontaneous services) in single stream (i.e. streamlined) (section 4 on p. 7) that utilize SIP methods, where Fig. 7 illustrated the communication between the clients and servers;

receiving a request for a service at a first (CC) server from a client device (user\_A); identify at least one second server (e.g. MTCU or MCU) to provide the service to at least some of the plurality of client device (e.g. User A & User B); creating a resource identifier at the at least one second server (e.g. a URL and service identifier); and redirecting the at least some of the plurality of client devices to get the service from/at the at least one second server, wherein the first server provides the service notification in a communication to the at least one second server to be then provided for the at least some of the plurality of client devices redirected to the at least one second server (Fig. 7 on p. 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made given the suggestion of Arnold for utilizing SIP server to utilize the teachings of Shim. One would be motivated to utilize presence and availability information particularly in the collaboration environments discussed by Shim, such supporting the transfers of in a conferencing service.

7. Regarding claims 8-9, 30-31, and 40, web browsers (Arnold col 1/lines 52-56, col 4/lines 17-26), SIP servers (Arnold col 3/lines 35-39), INVITE message (Shim, Fig. 7), SUBSCRIBE message (Shim p. 6).

8. Claims 3, 16-18, 25 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold-Rosenberg in view of Cardellini, as applied to claims directly above, and further in view of Ahuja et al., 6,175,869.

Ahuja et al teaches a technique for server allocation, which includes dispatch mechanisms for dispatching request to servers based on the servers load (col. 1, line 38-col. 2, line 13; col. 2, lines 42-col. 3, line 20 and col. 4, line 64-col. 6, line 67).

It would have been obvious to include such mechanisms of notion of mechanisms with Arnold in view of Rosenberg for redirecting clients request base of server work load in order to balance load to improving network service efficiency.

9. Regarding added claims 41-43, wherein the particular location comprises a domain where the clients are located (see Cardellini, identifying the requesting domain, considering client/domain location on p. 31).

10. Applicant's arguments with respect to at least independent claims and/or limitations particularly as now amended have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Andrew T. Caldwell can be reached at (571) 272-3868. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free)).

Any response to this action should be mailed to:  
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